Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C.

In the Matter of)	
Applications of Cellco Partnership d/b/a)	
Verizon Wireless and SpectrumCo LLC)	
For Consent to Assign Licenses)	
Application of Cellco Partnership d/b/a)	WT Docket No.12-4
Verizon Wireless and Cox TMI Wireless,)	
LLC for consent to Assign Licenses)	
Application of Cellco Partnership d/b/a Verizon Wireless and T-Mobile License L for Consent to Assign Licenses) LC)	WT Docket No. 12-175
In The Matter Of Promoting Interoperabili In The 700 MHz Commercial Spectrum; Interoperability Of Mobile User Equipmer Across Paired Commercial Spectrum Bloc In The 700 MHz Band) nt)	WT Docket No. 12-69.

Information Age Economics

Petition to Condition or Otherwise Deny

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SUMMARY

This filing presents two major findings regarding the implications and consequences of the announcement of a set of spectrum transactions between Verizon Wireless and T-Mobile whose approval is contingent on approval of the earlier applications for spectrum transfers between Verizon Wireless and four cable MSOs. It further presents Conditions for Approval of the new combined set of spectrum transactions. These Conditions are aimed at maximizing the benefits of these transactions for US customers and ensuring the competitive vigor of the US wireless market, while minimizing the risks of, and harm from, ongoing or even reinforced anticompetitive actions and behavior by Verizon Wireless. The findings and Conditions for Approval are as follows:

Finding 1: The combination of the various interconnected spectrum transactions involving Verizon Wireless, four cable MSOs, T-Mobile USA, and Leap Wireless offers significant potential benefits for US customers and for sustaining the effectiveness of competition in the US wireless market that were absent before T-Mobile became involved

Finding 2: However, the merits of this new proposed configuration of spectrum holdings between US mobile operators in no way diminish and could possibly intensify the antitrust and anti-competitive aspects and consequences of the other elements of the integrated set of transactions between Verizon and the four cable MSOs, namely their Joint Marketing Agreements (JMA) and Joint Operating Entity (JOE), which should therefore be rejected in their entirety. We concur with the findings and analytical approach to evaluating these consequences presented by the Consumer Federation of America in its Comment filed in the Proceeding WT 12-4 on July 9, 2012.¹

Conditions for Approval of the Spectrum Transactions: A number of significant Conditions for Approval should be imposed in order to: (i) Ensure that the spectrum transactions, if approved while the JMAs and JOE are rejected, do not cause significant harm to, or reduction in, competition in the US wireless market, as well as (ii) Maximize the benefits that will flow from deployment of mobile broadband networks in the new spectrum acquired by the various operators involved in these transactions. These Conditions include several that have already been proposed by other Parties in this Proceeding, which are bolstered by significant additions and modifications. These changes are designed in particular to protect the ability of smaller US operators with legacy CDMA/EVDO networks to compete on a reasonable and fair basis in the mobile broadband environment which will eventually be dominated by LTE technology. Approval of these spectrum transactions offers potential benefits as indicated in Finding 1 that

¹http://apps.fcc.gov/ecfs/document/view?id=7021984311; http://apps.fcc.gov/ecfs/document/view?id=70219843112

have to do specifically with the strengthening of competition. They also offer opportunities for the FCC to take steps toward partially rectifying and rolling back the damage to competition that is being caused and threatens to become much more severe in the near future as a result of non-interoperability within the 700 MHz band, one of the two major bands for LTE deployments in the US. The Conditions proposed cover requirements and obligations on Verizon for: (i) Its data roaming agreements with other operators; (ii) The LTE devices it supports and offers; and (iii) The auction of its Lower 700 MHz Block A and B frequencies; and (iv) Coverage obligations (applied as well to eventual purchasers of its 700 MHz Lower Band spectrum).

Benefits of the New Configuration of Spectrum Transactions

Information Age Economics has undertaken a review of the implications of the spectrum transfers and swaps negotiated between T-Mobile and Verizon Wireless as described in a series of Applications seeking approval for the full and partial assignments of Advanced Wireless Service ("AWS-1") licenses by and between them. These Applications are conditional upon approval of the proposed spectrum transfer between Verizon and four cable MSOs as well as of spectrum transactions between Verizon and Leap Wireless.

We have concluded that this combination of spectrum transactions offers greater benefits in terms of the future competitive vigor of the US wireless market and potential customer benefits than the Verizon/cable MSO spectrum transfers alone.

The major merit of the addition of the T-Mobile/Verizon spectrum transactions to the earlier applications by Verizon and the four cable MSOs is that the AWS spectrum that T-Mobile will receive establishes a clear path for its achieving competitive national LTE coverage. This coverage will be possible when the AWS spectrum from Verizon (including some now held by the cable MSOs) is combined with the AWS spectrum that T-Mobile has already received from AT&T as part of its "break-up fee" when the merger of these two companies was abandoned. Given the alacrity with which T-Mobile has been moving to deploy LTE in the AWS spectrum acquired from AT&T, it is evident that it will also move rapidly to exploit the AWS frequencies it proposes to acquire from Verizon. T-Mobile's record in promptly exploiting the frequencies it acquires stands in sharp contrast to the years of delay by Verizon and AT&T, as well as the cable MSOs, in making additional network capacity available to customers in the frequencies they acquire. It has been six years since the AWS-1 frequencies involved were originally acquired by Verizon, AT&T, and the cable MSOs in the FCC's auction 66. Smaller operators, such as MetroPCS and Leap Wireless, began offering LTE service in some of the areas covered by their AWS-1 frequencies in 2010 and 2011 respectively

Nine months ago, while the outcome of AT&T/T-Mobile Proceeding was still unclear, IAE specifically identified T-Mobile's path to LTE, including the use of AWS frequencies held by AT&T and the cable MSOs, as a more preferable and available alternative for the competitive

health of the US wireless market, and, importantly, for T-Mobile, than its absorption by AT&T². While the amount of the financial payment to be made by T-Mobile to Verizon for the net transfer of AWS frequencies to its spectrum portfolio has not been made public, it may be estimated on the basis of the 390 million MHz-POPS that is said to be involved. If this payment is based on the average price paid for AWS-1 spectrum in the FCC's Auction 66 (\$0.53 per MHz-POP) then it will amount to just under \$207 million. Of course the actual payment may be larger or smaller depending on factors such as: (i) The original Auction 66 prices of the specific frequencies to be swapped and transferred between T-Mobile and Verizon Wireless, and whether (ii) Verizon tries to seek a return on its original AWS spectrum investments as it has said it reserves the right to do on its 700 MHz Lower band A and B Block frequencies, and (iii) T-Mobile negotiates effectively using the argument (with which we agree) that its participation in AWS spectrum transactions with Verizon enhances the probability to Verizon's benefit that the Verizon/cable spectrum transactions will be approved. In any event it seems inconceivable that the price T-Mobile has agreed to pay for the net transfer of AWS spectrum it proposes to acquire from Verizon amounts to more than a fraction of the \$3 billion in cash received from AT&T as part of the break-up fee already mentioned.

So if all these inter-related spectrum transactions are approved, T-Mobile will have acquired enough bandwidth to enable it to deploy an effective nationwide LTE network exploiting 2x10 MHz of AWS spectrum throughout, or over the great majority of its coverage. This network will offer the following benefits:

- A competitive LTE network to AT&T's for GSM/HSPA customers.
- Increased attractiveness of T-Mobile to potential partners and investors its parent,
 Deutsche Telekom, may be seeking, so that it can reduce the commitments it has to make to the US market, and is then able to devote more resources to its domestic and "near domestic" markets in Europe, which include a number of troubled properties, e.g., in Greece.
- Support of the goal of a sustainable national wireless competitor in addition to the two market leaders, Verizon Wireless and AT&T Mobility, who may otherwise be able to establish an effective duopoly in this market. Concern about this goal has risen over the past year, given the evidence about the weak position of the current #3 operator Sprint Nextel³, both financially and with respect to its path towards the deployment of competitive LTE-based services.

In particular Sprint's path to and schedule for building an adequate let alone competitively impressive LTE network remains unclear as of this writing (early July 2012). Sprint's hosting deal with LightSquared which would have given it access to L-Band spectrum has been terminated after it became clear that approval for terrestrial use of this spectrum was unlikely to be forthcoming in light of concerns about interference with established GPS-based

spectrum was unlikely to be forthcoming in light of concerns about interference with established GPS-based services, including vital public safety applications. Sprint was abandoned by its former partners, the cable TV

² "T-Mobile USA: A Better Future Without AT&T," October 6, 2011, BNA Daily Report for Executives,

³ "Analyst sees risk of bankruptcy for Sprint Nextel," http://www.bizjournals.com/dallas/blog/morning_call/2012/03/analyst-sees-risk-of-bankruptcy-for.html

In addition, in the future T-Mobile should be able to enhance the overall capabilities and performance of its networks further within its proposed combined AWS and PCS spectrum portfolio by following and exploiting anticipated improvements along the road maps of both HSPA and LTE technologies. These road maps include HSPA+LTE carrier aggregation techniques across the PCS and AWS bands, just as Verizon Wireless should in future be able to exploit LTE+LTE carrier aggregation across its 700 MHz and AWS frequencies.

The Verizon/Cable JMAs and JOE Are Still Unacceptable

However, the addition of a set of spectrum transfers and swaps between T-Mobile and Verizon Wireless to the spectrum transfers to Verizon Wireless from four cable MSOs does nothing to remove what we currently view as the inherent antitrust and anti-competitive aspects and inevitable consequences of the Joint Marketing Agreements (JMA) and Joint Operation Entity (JOE) between this leading telephone company and four major cable operators. VZW and their MSO partners have objected to IAE gaining access to their full proposal, including confidential information with respect to the JMAs and the JOE⁴. In the absence of information about these elements of the proposal we have had to rely on public comments and limited publicly available information about a complex set of collaborative, as opposed to competitive, business arrangements that appear not to be in the public interest. At this point, we believe that they represent unacceptable anti-competitive conditions. Today Verizon Wireless and the MSOs are standing in the way of an objective, third party analysis by IAE of these agreements. Should we be granted access in the future, we are willing to reconsider our position, when and if justified by the additional evidence and information we will then be able to evaluate.

Based upon our current knowledge, we believe that the JMAs and the JOE constitute major elements of an integrated set of transactions between these parties. We have assessed the elements of the transactions in our earlier filings⁵ in Proceeding WT 12-4, and exposed the misleading character and contents of Verizon's and the cable MSOs' key claims and assertions in their favor as well as the harm their implementation will inflict upon the public interest, American broadband users, and competition in and the performance of the entire US broadband market. In their response Verizon and the cable MSOs have either ignored or fundamentally and astonishingly misconstrued the evidence and analyses we presented as if they had either not read

MSOs, and replaced by Verizon Wireless, eliminating the possibility of an arrangement in which Sprint would have taken over, or been able to exploit, its AWS spectrum. Furthermore, there is a lack of clarity in Sprint's troubled relationships with Clearwire, in which it remains the largest single shareholder, about whether, when, and how Sprint may be able to make use of the TD-LTE capacity whose deployment is being planned by Clearwire in the 2.5 GHz band. Sprint's LTE deployments in the PCS band are FDD, so its access to Clearwire's TD-LTE deployments, with far from national coverage (around 40-45% of POPs without a substantial expansion in Clearwire's 2.5 GHz coverage), would be of limited value, without devices that combine TD-LTE and FDD LTE capability.

⁴ Opposition filing, http://apps.fcc.gov/ecfs/document/view?id=7021982205

⁵ IAE filings: http://apps.fcc.gov/ecfs/document/view?id=7021920096; http://apps.fcc.gov/ecfs/document/view?id=7021920798; http://apps.fcc.gov/ecfs/document/view?id=7021920798;

or at least not understood them. They have found themselves unable to rebut IAE's assessments of their proposed transactions, resorting primarily to either unsupported or easily refuted characterizations of our findings such as "irrelevant", "unrelated", "off-base", and "crystal-ball speculation", all of which we have demolished in our subsequent reply.⁶

The addition of T-Mobile to the mix of Verizon Wireless' spectrum transactions does not alter one consequence of their approval, namely that Verizon Wireless will acquire more than its already considerable market power to discriminate against smaller, especially CDMA operators, as a result of the expansion of its spectrum portfolio in either configuration of transactions. The harmful consequences of the JMAs and JOE for the entire US broadband market are influenced by, and derive from, the coordinated marketing powers of Verizon Wireless and Verizon Telecom (wireline), despite Verizon's disingenuous and amply refuted protestations that there is no such coordination. These consequences are severe enough that the JMAs and JOE should be rejected, even if there were no accompanying spectrum transactions between Verizon and the cable MSOs. They will be more severe if the JMAs and JOE are allowed to proceed accompanied by either scenario of spectrum transactions, whether the original one without T-Mobile's participation, or the current one including T-Mobile.

As the Consumer Federation of America's (CFA) Comment of July 9 in Proceeding WT 12-4 referenced in footnote 1 above says:

"In light of the history and structure of the industry, the Communications Act banned certain potentially anticompetitive transactions – like the joint venture proposed in these collaborative agreements. Because communication is so important the FCC is charged with pursuing policy goals beyond competition, policy goals that could be significantly impacted by the proposed collaborative agreement. Because the joint venture has been intertwined with a transfer of spectrum, all of the agreements connected to the transaction are subject to the full public interest review. One might hypothesize that if the joint venture had not been coupled with the transfer of licenses there might have been a different kind of review, but it is clear that the FCC has the legal authority and obligation to review a transaction that can have such a profound impact on the communications and video services governed by the Communications Act."

This CFA Comment lays out numerous reasons why the DOJ and FCC are required, by both antitrust and communications law, to oppose the Verizon/cable transactions, on the basis of a rigorous analysis that views the transaction through the lens of the comprehensive framework for assessing the impact of collaborations among competitors developed by the Department of Justice and the Federal Trade Commission.

⁶Verizon et al. rebuttal to IAE: http://apps.fcc.gov/ecfs/document/view?id=702192322; IAE Reply: http://apps.fcc.gov/ecfs/document/view?id=7021923615

This analysis can only be carried out by independent experts with access to confidential documents that describe the intent, governance, and modus operandi of the collaborative arrangements between Verizon and the cable companies, which, as noted above, they are vigorously opposing.

IAE's finding that the JMAs and JOE should be rejected therefore stands. It is only subject to modification, or alternatively confirmation and reinforcement, on the basis of a comprehensive and objective review within the analytical framework outlined in the CFA Comment or some equivalent approach.

The New Configuration of Spectrum Transactions Still Entails Serious Anti-competitive Risks

The merits of the new configuration of spectrum transactions including T-Mobile do not remove concerns about the ways in which Verizon Wireless will be able to use its considerable market power, which will be enhanced if they are approved, to discriminate unfairly especially against smaller CDMA operators. Two areas where this discrimination has been most acutely felt are with respect to the data roaming agreements that smaller operators have found difficult or impossible to obtain and afford under reasonable commercial conditions, along with the introduction of non-interoperability into the 700 MHz band. The latter phenomenon is the result of distinctive unilateral actions taken in parallel by Verizon Wireless and AT&T Mobility. This non-interoperability, both between the Lower and Upper Bands and within the Lower Band, has progressed at an increasingly rapid pace along the path to establishing two separate "bands" (Lower and Upper) within the 700 MHz Band, thereby creating an LTE-based mobile broadband environment that for US customers is analogous to that which they face when roaming abroad in countries which use different frequency bands than the US. However, the variety of frequency bands assigned and in use in different countries, represents the outcomes of global and regional negotiations in which the US participates, not the result of unilateral and unauthorized actions by one or two large operators. In effect LTE is developing in the US as if the "United States" were three countries, say Uppervzwalia, Loweratterra, and Ablockland.

The public interest and the aim of public policy lies in removing these "boundaries" as soon as possible, and preventing further strengthening of their "border controls." The long standing principles of interoperability and the freedom of customers to use whatever devices they want and access whatever networks, applications and services they wish to, subject to minimum restrictions based on safety, and genuine not falsely asserted technical incompatibility, must be re-affirmed and sustained on a lasting basis The Applications for the various spectrum transfers and swaps that are on the table provide an opportunity for taking a significant first and partial step in this direction before the facts on the ground in terms of the number of non-interoperable devices in the hands of customers soars into the tens of millions. This highly undesirable and customer-hostile scenario is coming into view within the next 12-18 months driven by the

aggressive LTE or "4G" sales and marketing campaigns of Verizon Wireless and AT&T Mobility.

Conditions for Approval

The Conditions for Approval of the spectrum transactions being applied for should include:

- 1. As already proposed earlier in this Proceeding, Verizon Wireless must agree to accept the FCC's data roaming mandate. It must also withdraw its current legal effort to have this mandate overturned and commit not to re-launch subsequently any legislative initiative that challenges the authority of the FCC to impose such a mandate.
- 2. Any future LTE device offered by Verizon Wireless must incorporate an AWS capability. While this capability will not eliminate all the problems caused by 700 MHz noninteroperability, it will create a larger market for and a richer portfolio of LTE AWS capable devices sooner rather than later which smaller CDMA operators – such as MetroPCS and Leap - will be able to exploit to offer national coverage to their customers. Their customers will be able to use these devices on their AWS networks and roam onto Verizon with access to both the latter's 700MHz and future AWS LTE coverage and capacity, thereby improving the likelihood that roaming capacity, will be available whenever and wherever their customers need it. The 700 MHz capability in the devices used by customers of these smaller operators will of course be of no value on their "domestic" or home operator networks. The 700 MHz Upper C Block will play the same role as a frequency band not used in the US which is included (a common practice) in a device sold or otherwise acquired by a US customer so that it can be used when roaming in another country. Open device and open application conditions were established in the FCC's 2008 Auction 73 for the 700 MHz Upper C Block frequencies, which so far Verizon Wireless has been able to ignore so far without any regulatory consequences. The requirement for an AWS LTE capability is the least that can be done to mitigate the strength of the walls around "walled garden" which Verizon Wireless is constructing with the Verizon-only devices that are being launched into the US wireless market. Customers of other operators who do not wish to pay for any additional cost involved in the dualfrequency LTE configuration could opt just to acquire AWS-only LTE devices which would limit but not eliminate their national roaming options with Verizon Wireless and still allow them to roam onto T-Mobile's AWS LTE network.
- 3. In addition to requiring an LTE AWS capability in any future Verizon LTE devices, VZW must be required to make these same devices available to any other CDMA/LTE operator, and their customers who request them, in order to support mandatory data roaming on VZW's networks, at the same device cost as VZW itself incurs in acquiring these devices. It is VZW which has created the "foreign country" equivalent character of

⁷ LTE customers of CDMA operators roaming onto T-Mobile's LTE network would have to fall back on Verizon's or Sprint's CDMA/EVDO networks where there is no LTE coverage or capacity available from T-Mobile.

its 700 MHz LTE network within the US by using a frequency band or sub-band that no other US operator does or can have access to⁸, so it is appropriate that it should bear the burden of overcoming the economic and coverage obstacles to healthy market competition which this situation has created.

The two device-related Conditions 2 and 3 are particularly critical with respect to the eagerly anticipated LTE-capable iPhone 5 from Apple, given the numbers of customers who are likely to acquire this mobile device when it is released. The iPhone 5 should not be released in single carrier-specific or mono-carrier versions (i.e. VZW-only and AT&T-only) as is the case with the most recent version of Apple's LTE-capable iPad tablet. Since VZW is deploying LTE in 700 MHz and will do so in the AWS band it is certain that at some point it will offer dual frequency LTE devices for its own purposes. However, these Conditions will ensure that such devices, with both 700 MHz Upper C Block and AWS capability, are available to customers independently of the timing of VZW's rollout of AWS LTE coverage.

Furthermore, roaming by MetroPCS and Leap (or Cricket) LTE subscribers onto VZW's LTE AWS network when it is deployed will generate roaming fees for VZW to offset the deficit in such fees which VZW asserts it now incurs. LTE AWS capability could help customers of some other smaller CDMA operators as well. C Spire could offer roaming onto Verizon using devices that exploit its own AWS frequencies in a few areas, and dual frequency LTE PCS/AWS devices in some other areas. It would be easier to get chipset and device vendors interested in this combination of two frequencies which will offer them more sizable market prospects than dual frequency Lower 700 MHz Block A/AWS devices. Sprint's Network Vision is first deploying LTE in the PCS band, and more generally it is expected that over time significant amounts of PCS spectrum will be refarmed from GSM to LTE. AWS-capable LTE devices with CDMA included also offer the possibility of roaming for LTE customers of small CDMA operators onto T-Mobile's LTE network as an alternative to VZW. This roaming option could become available earlier than roaming onto VZW since T-Mobile's LTE AWS deployment (which has already begun) seems likely to be ready for commercial service with widespread coverage before VZW's.

Other Conditions that would serve to maximize the benefits flowing from approval of the combined set of Verizon/Cable/T-Mobile/Leap spectrum transactions while limiting the ability of Verizon Wireless to act anti-competitively and/or warehouse spectrum include:

- 4. Conditions on Verizon's proposed auction of its Lower 700 MHz Band A and B frequencies
 - a. This auction must take place within a specified time after approval of the Verizon/cable/T-Mobile/Leap transactions, say three months. Furthermore Verizon must agree that it will sell these frequencies as long as there is a bidder or bidders which pay them at least the amount Verizon originally paid for them in the 2006 Auction 66 (i.e. reserve prices). Verizon must not be permitted to use an escape clause to wriggle out of a commitment to sell these 700 MHz frequencies

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⁸ Unless they agree to deploy a network in Upper Block C frequencies which Verizon Wireless makes available to them, which does not help them deploy LTE in any other 700 MHz frequencies they hold.

- on the grounds that it will not make a return or a satisfactory return on this investment.
- b. The auction itself must be managed by the FCC or by an independent auctioneer selected and supervised by the FCC, not by Verizon or an organization chosen by Verizon. Verizon has shown a clear propensity to establish agreements with partners which it then classifies as "commercially confidential" and argues are not open to review. These agreements may distort the outcome of the auction by creating incentives for Verizon to favor bids from one or more such partners to the exclusion of others, finding grounds for ignoring the criteria established for the auction in a process that turns out to be non-transparent and far from open.
- c. Furthermore obligations with "use it as required or lose it" penalties must be attached to the purchase of these frequencies whereby any purchaser must agree to deploy Band Class 12 networks and not Band Class 17, and to achieve substantive coverage of such networks within the footprints of the licenses it acquires within two years of their transfer
- 5. Verizon must achieve various coverage targets to be specified for LTE deployments in the AWS-1 band within two and three years from consummation of the several AWS spectrum transactions involved. Since Verizon is claiming that it faces a looming shortage of wireless capacity in some areas as early as 2013 based on its revised demand forecasts there should be no basis for objection to this condition. This condition will also help ensure as noted above that the development of dual frequency 700MHz/AWS LTE devices is in the near term interests of Verizon itself as well as in the interests of enabling LTE roaming onto VZW's network for smaller CDMA operators and their customers.

These five Conditions should not be construed as necessarily representing a complete set of all the Conditions that should be imposed for approval of the spectrum transactions being reviewed. For example, other Parties to the Proceeding such as Sprint Nextel and the RCA (The Competitive Carriers Association) have proposed and presented justifications for conditions related to access to the cable MSOs' Wi-Fi hot spots and Verizon's special access facilities which we have not evaluated in preparing this filing.